GILYAROVSKIY, V.A., zasl. deyatel' nauki, red.; FEDOTOV, D.D., red.; SLYUSAREV, F.M., kand. med. nauk, red.; RIKHTER, G.E., kand. med. nauk, red.; FEL'DMAN, E.A., kand. med. nauk, red.

[Transactions of the Scientific and Practical Conference of Neuropathologists and Psychiatrists of the Baltic Republics] Trudy Nauchno-prakticheskoi konferentsii nevropatologov i psikhiatrov Pribaltiiskikh respublik. Riga, M-vo zdravookhraneniia Latviiskoi SSR, 1956. 466 p. (MIRA 17:5)

1. Nauchno-prakticheskaya konferentsiya nevropatologov i psikhiatrov Pribaltiyskikh respublik, 1954. 2. Deystvitel'nyy chlen AMN SSSR (for Gilyarovskiy). 3. Direktor Instituta psikhiatrii Ministerstva zdravookhraneniya SSSR (for Fedotov).

SLYUSAREV, F.M.

Tick-borne diphasic meningoencephalitis in Transcarpathia. Vrach.delo no.10:111-112 O '60. (MIRA 13:11)

1. Klinika nevrologii meditsinskogo fakul'teta Uzhgorodskogo universiteta.
(TRANSCARPATHIA--ENCEPHALITIS)
(TICKS AS CARRIERS OF DISEASE)

GUSAKOV, P.M., VASHKO, Ye.M.

Irradiating hypoglycemia paroxysms following the removal of a pancreatic adenoma. Vrach. delo no.3:124-125 Mr '64.
(MIRA 17:4)

1. Meditsinskiy fakul'tet Uzhgorodskogo universiteta.

SLYUSAREV, F.M.; MAT'KOVSKIY, E.I.

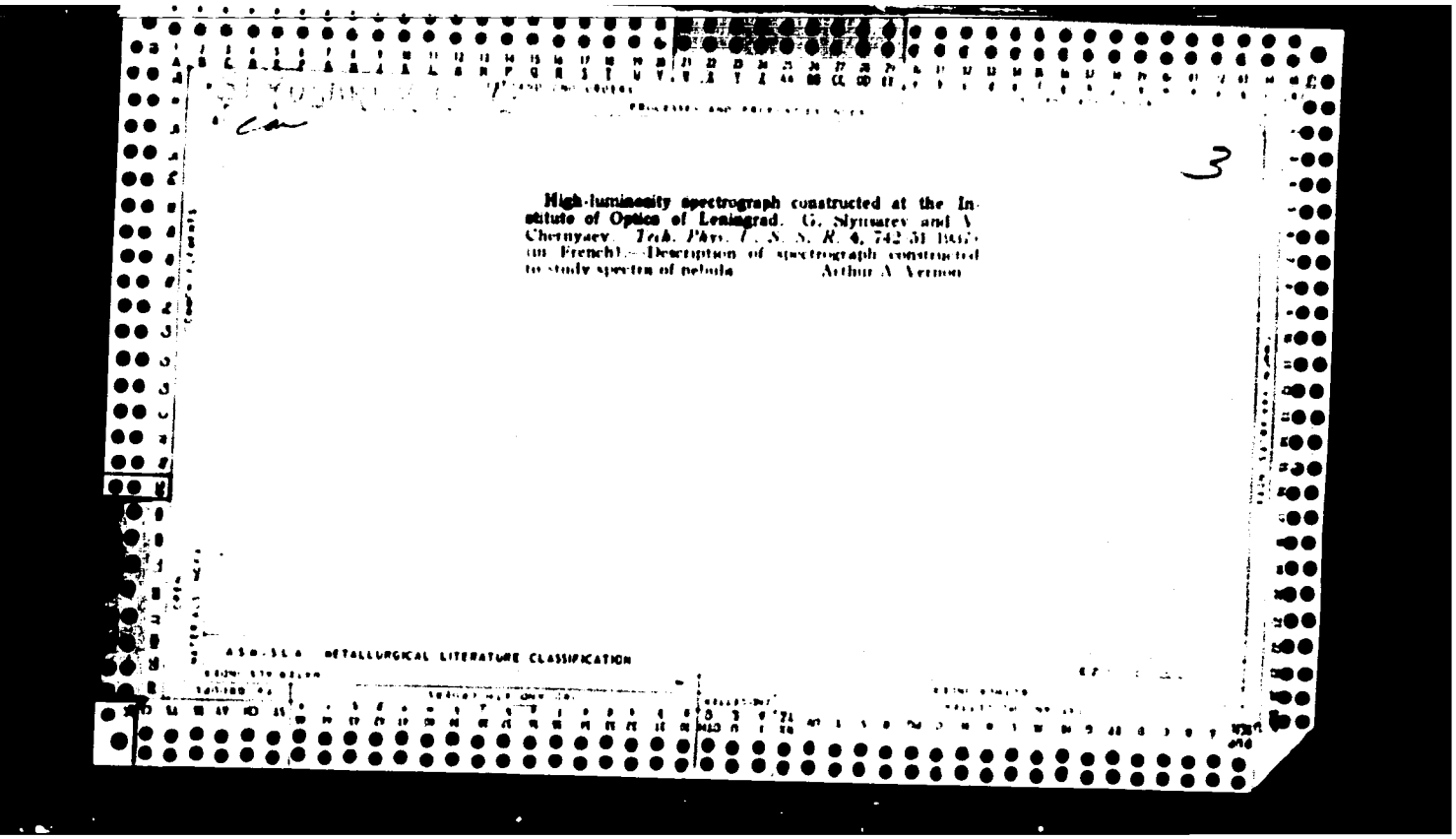
Diagnostic significance of the permanganate reduction test in neurological practice. Zhur. nevr. i psikh. 64 no.6:833-836 '64. (MIRA 17:12)

1. Klinika nevrologii Uzhgorodskogo universiteta i Perechinskaya rayonnaya bol'nitsa Zakarpatskoy oblasti.

SLYUSAREV, F.M.

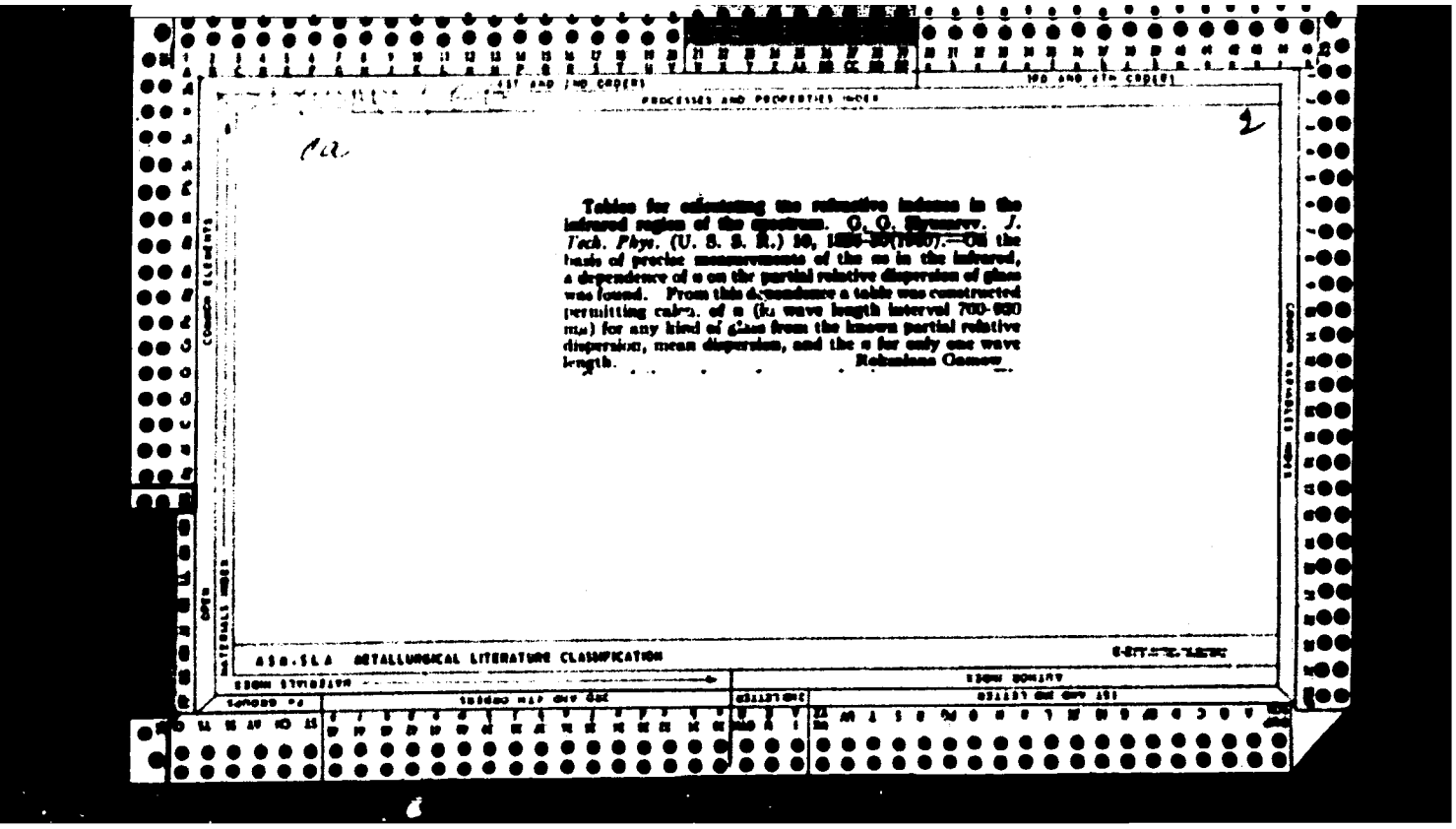
Content of nicotinic acid and its derivatives in blood, urine and cerebrospinal fluid of patients with lesions of the nervous system. Zhur.nevr. i psikh. 66 no.1:57-60 '66.
(MIRA 19:1)

1. Klinika nevrologii Uzhgorodskogo universiteta. Submitted August 1, 1964.



High-luminosity spectrograph constructed at the Institute of Optics of Leningrad. G. Slyusarev and V. Chernyaev. *Zeŭ. Fiz.* (*J. Exp. Theor. Phys.*) *U. S. S. R.* 4, 742-51 (1937) (in French).—Description of spectrograph constructed to study spectra of nebulae. Arthur A. Vernon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Tables for calculating the refractive indexes in the infrared region of the spectrum. O. O. Gyunnov. *J. Tech. Phys.* (U. S. S. R.) 10, 1[illegible]-30(1940).—On the basis of precise measurements of the n_D in the infrared, a dependence of n on the partial relative dispersion of glass was found. From this dependence a table was constructed permitting calcn. of n (in wave length interval 700-920 mμ) for any kind of glass from the known partial relative dispersion, mean dispersion, and the n for only one wave length. Rehmiana Gomow

Slyusarev, G. G.

3
9
0
0

*Slyusarev, G. G. Geometričeskaya optika. [Geometrical Optics]. Izdat. Akad. Nauk SSSR, Moscow-Leningrad, 1946. 332 pp. (2 plates).

The author begins with the wave equation and deduces therefrom the usual equations of geometric optics. Among the topics listed in the chapter headings are: basic theories; pencils and wave surfaces; ideal and real optical systems; lenses, prisms, and plane mirrors; optical [illegible] with spherical surfaces; [illegible] pencils and optical [illegible] aberration; the [illegible] properties of the [illegible] computation [illegible] optical [illegible] forms [illegible]

USSR/Physics
Spectrographs
Light Sources

May 1948

"Illumination of the Slit of a Spectrograph by a Non-absorbent Three-Dimensional Source of Light," G. G. Slyusarev and V. N. Chalmonskiy, Sci Res Phys Inst, Leningrad State U, 8 pp

"Zur Tekh Fiziki" Vol XVIII, No 5

J. R. Nielsen considered case of a rectangular slit illuminated by a source also of rectangular section (JOSA 20, 701, 1930). Difficulties of this problem are considerable, and Nielsen's formulas are complicated and difficult to apply to practical cases.

[illegible] obtains simpler formulas by considering case of a circular slit illuminated by a cylindrical source

Submitted 11 Dec 1947.

DESCARTES, René, 1596-1650 [author]; SLYUSAREV, G.G., perevodchik i kommentator; YUSHKEVICH, A.P., perevodchik i kommentator.

[Discourse on Method with his Dioptrics, Meteors and Geometry] Rassuzhdenie o metode o prilozheniiami dioptrika, meteory, geometriia. Red., perevod, stat'i i kommentarii G.G.Sliusareva i A.P.IUshkevicha. [Leningrad] Izd-vo Akademii nauk SSSR, 1953. 656 p. (MLRA 6:7)

(Science—Methodology)

MICHEL, K; LEYKIN, M.V.[translator]; SLYUSAREV, G.G., professor, redaktor; GRIGOROVA, B.A., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor.

[Fundamentals of the theory of the microscope. Translated from the German] Osnovy teorii mikroskopa. Perevod s nemetskogo M.V.Leikina. Pod red. G.G. Sliusareva. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1955. 276 p. (MLRA 9:1)
(Microscope)

PHASE I BOOK EXPLOITATION 657

Ch'ubarev, Georgiy Georgiyevich

O vozmozhnom i nevozmozhnom v optike (The Possible and Impossible in Optics) 2nd ed., rev. Moscow, Gostekhizdat, 1957. 178 p. 12,000 copies printed.

Ed.: Orlova, L. I.; Tech. Ed.: Volchok, K. M.

PURPOSE: This book is intended for students and specialists in the field of optics.

COVERAGE: The author describes what is possible and what is impossible in optical instruments. He covers certain misconceptions previously associated with optics. The basic concepts of light energy are given along with the theory behind light scattering. He discusses optical instruments, photographic objectives, reversibility and irreversibility in optics, resolution limits and the resolving power of optical systems, aberrations, phase, amplitude, and the theory of image formation. Prospects are given for the future of optics. This second edition of the book was reviewed by G. S. Landsberg. There are no references.

Card 1/4

AVAILABLE: Library of Congress

Card 4/4

BK/mas
10-8-58

535.42 : 535.8

6540. OPTICAL SYSTEMS WITH PHASE LAYERS. G.G.Slyusarev. Dokl. Akad. Nauk SSSR, Vol. 113, No. 4, 780-2 (1957). In Russian.

The optical path connecting a point object to its image is not constant for a zone plate. A modified plate is described in which the path is kept constant for each zone and there is a phase change of 2π in going from one zone to the next. Such phase plates may be produced by depositing, on the surface of a lens, thin layers whose thickness varies according to a given law, or by a special polishing. It is shown that the defects of zone plates can be either fully avoided, or used in the compensation of the residual chromatic aberration of "ordinary" optical systems (secondary spectrum). S.Chomet

Sov/51-4-4-9/24

AUTHORS: Slyusarev, G.G. and Kulikovskaya, N.I.

TITLE: Change in the Distribution of Light Energy in a Diffraction Image by Means of Filters of Variable Transparency (Izmeneniye raspredeleniya svetovoy energii v difraktsionnom izobrazhenii posredstvom filtrov peremennoy prozrachnosti)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 4, pp 486-493 (USSR).

ABSTRACT: Distribution of light energy in the image of a luminous point or line produced by an aberration-free optical system is determined by diffraction of light and depends on the geometrical form of the entrance pupil. Thus, an image of a point produced by an objective of circular shape consists of a central circle of light surrounded alternately by dark and bright rings. If in the plane of the pupil an absorbing filter, with a coefficient of transmission which varies from point to point is placed, it is possible to weaken the secondary maxima represented by bright rings surrounding the central spot (the process is known as "apodization"). Alternately, such a filter could be used to decrease the diameter of the central spot or the width of a central band (for a rectangular entrance pupil). In both cases an increase in the

Card1/3

Change in the Distribution of Light Energy in a Diffraction Image by Means of Filters of Variable Transparency

resolving power would be obtained. The authors give a short historical review of the work on such absorption filters. Calculations carried out by the authors themselves confirm that it is not possible to decrease simultaneously the size of the central maximum and to reduce the secondary maxima. Only one of these aims can be achieved at a time and then only at the expense of the other. It was found that a complex absorption filter would be necessary to produce a wide dark area around the central diffraction maximum. To remove the first two secondary maxima, which is all that is often required, a comparatively simple absorption filter can be used. Such a filter consists of 10 parts (bands or rings) of transparency, which varies from part to part and all parts are equal in area. The method of calculation of such filters

Sov/51-4-4-9/24

Change in the Distribution of Light Energy in a Diffraction Image by Means of Filters of Variable Transparency

is given in the paper, together with the results obtained with various specific filters (see Figures 3, 7, 8). There are 8 figures and 20 references, 15 of which are French, 4 in English and 1 Dutch.

ASSOCIATION: Gosudarstvennyy opticheskiy institut imeni S.I. Vavilova (State Optical Institute imeni S.I. Vavilov)

SUBMITTED: June 21, 1957

1. Optical filters--Design

Card 3/3

RUSINOV, Mikhail Mikhaylovich. Prinimal uchastiye SLYUSAREV, G.G., prof., doktor fiziko-matem.nauk. YAKHONTOV, Ye.G., red.; VASIL'YEVA, V.I., red.izd-va; BOTVINKO, M.V., tekhn.red.

[Dimensional calculation of optical systems] Gabaritnyi raschet opticheskikh sistem. Izd-vo geodez.lit-ry, 1959. 257 p. (MIRA 13:4)

(Optics, Geometrical)

AUTHOR: Apusarev, G.I.

TITLE: Effect of a Temperature Gradient in Glass on the Image Produced by an Optical System (Vliyaniye temperaturnogo gradiyenta stekla v opticheskikh sistemakh na izobrazheniye, davayemoye poslednimi)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 2, pp 211-218 (USSR)

ABSTRACT: The effect of temperature variations on quality of images produced by optical systems was recently studied both theoretically and experimentally. Among theoretical works there were papers by Conrady (Ref 1), Sonnefeld (Ref 2), Maksutov (Ref 3), Perry (Ref 4) and Volosov (Ref 5). These workers considered the effect of temperature variations on the coordinates of the image of a point-object assuming that at any particular moment the temperature of all the elements of an optical system (both glass and supports) is the same. Theoretical calculations reported were made for the paraxial region employing assumptions similar to those used in treatments of chromatic aberrations of position and magnification. For a two-lens objective Maksutov derived a formula which gives changes in the position of the focus caused by temperature variations. Volosov (Ref 5) continued Perry's work and calculated a number of objectives corrected for thermo-optical aberrations. The present paper differs from earlier work in its consideration of

Effect of a Temperature Gradient in Glass on the Image Produced by an Optical System

temperature gradients inside optical apparatus. The author discusses the effect of a non-uniform distribution of temperature in optical apparatus on the images obtained. The effect of temperature gradients on the form of lens surfaces is considered, as well as the effect of the refractive index gradient produced by non-uniformity of temperature. A special case of symmetric distribution of the temperature gradient about the optical axis is dealt with. The paper is entirely theoretical. There are 5 figures and 6 references, 3 of which are Soviet, 2 German and 1 English.

SUBMITTED: March 4, 1958

L 31499-66 EWT(1)
ACC NR: AP6013030 SOURCE CODE: UR/0051/66/020/004/0716/0723

AUTHOR: Slyusarev, G. G.

ORG: none

TITLE: Calculation of a frequency contrast characteristic

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 716-723

TOPIC TAGS: optic system, optic image, Fourier transform, light theory, light diffraction, light aberration, chromatic aberration, ILLUMINATION OPTICS

ABSTRACT: The author presents a method of calculating the transfer function of an optical system, defined as the suitably-normalized Fourier transform of the distribution of the illumination in the image of a point, produced by the optical system. The calculation is made with account of diffraction. Unlike calculations by others, the spherical wave front is not approximated by a plane, so that systems with a high degree of correction, including those corrected for spherical and chromatic aberration and for coma, with aberrations smaller than several wavelengths of light, can be handled by this method. The calculation is standard, but is presented in a form suitable for programming with an electronic computer. The procedure was checked by means of a calculation of the transfer function of a

Card 1/2 UDC: 535.317.25

SLYUSAREV, G.M.; VASIL'YEV, G.P.

Automatic control of a water-pump station. Mashinostroitel' no.12:12 D '61. (MIRA 14:12)
(Pumping machinery)
(Automation)

SLYUSAREV, M. G.

Tree Planting

Flow of acorns from a seed box opening. Les. khoz. 5 no. 3(42), 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

1. SLYUSAREV, M.G.
2. USSR (600)
4. Drill (Agricultural Implement)
7. Using the SLCh-1 machine for sowing acorns, Les.Khoz. 6 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

SLIOZKIN, M. G.

"A Study of Certain Physicomechanical Properties of the Oak and the Technological Process of Its Planting." Cand Agr Sci, Voronezh Forestry Inst, Min Higher Education USSR, Voronezh, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)
SO: Sum. No. 508, 29 Jul 55

L 57474-65 EWT(l)/EWP(m)/EPA(s)-2/EWI(m)/EWA(d)/EWP(t)/FCS(k)/EWP(b)/EWA(l) Pd-1/

ACCESSION NR: AP5014173 Pt-7 IJP(c) UR/0382/65/000/001/0033/0036
JD/JG 538.4:532.542.4

47
B

AUTHOR: Branover, G. G.; Slyusarev, N. M.; Shcherbinin, E. V.

TITLE: Results of turbulent velocity fluctuation measurements in mercury stream in presence of transverse magnetic field

SOURCE: Magnitnaya gidrodinamika, no. 1, 1965, 33-36

TOPIC TAGS: magnetohydrodynamics, turbulent flow, Reynolds number

ABSTRACT: The purpose of the study was to determine experimentally the predicted suppression of turbulence in mercury flow when a magnetic field is applied across the stream and to confirm effect of the field on the flow velocity profile. The experiments were performed with Reynolds number ranging from 0 to 3,800 and Hartman's number ranging from 0 to 140. Turbulence and flow profile data were obtained using a specially constructed probe sensitive to dynamic pressures. Turbulence suppression was indicated by decrease in amplitude of velocity fluctuations as the magnetic field increased. Insufficient data precluded determination of dependence of the frequency fluctuations on magnetic field. Orig. art. has: 4 figures.

Card 1/2

L 57474-65

ACCESSION NR: AP5014173

ASSOCIATION: none

SUBMITTED: 12Sep64 ENCL: 00 SUB CODE: ME, EM

NO REF SOV: 005 OTHER: 001

Card 2/2

BRANOVER, G.G., SLYUSAREV, N.M.; SHCHERBININ, E.V.

Some results of measuring pulsations in the rate of a turbulent mercury flow in the presence of a transverse magnetic flow. Mag. gidr. no.1:33-36 '65. (MIRA 18:5)

82731
S/089/60/009/002/002/015
B006/B056

21.1920

AUTHORS: Slyusarev, P. N., Ushakov, G. N., Starkov, O. V., Kochetkov, L. A., Nesterova, L. N., Kozlov, V. Ya.

TITLE: Investigation of the Transfer of Radioactive Substances by Steam and Water and the Chemical Stability of Deposits in the Steam - Water Cycle of the First Atomic Power Plant 19

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 2, pp. 98-103

TEXT; The quantity of radioactive substances carried along in boiling-water reactors by steam and water, their depositing on the inner surfaces of conduction pipes, as well as the chemical nature and the behavior of these deposits depends essentially on the mode of operation of the reactor and the construction of the evaporators and separators. In the plants of the Pervaya atomnaya elektrostantsiya (First Atomic Power Plant), the authors investigated the processes in which radioactive substances are carried along by steam and water. They determined the depositing coefficient of the substances on the inner surfaces of the conduction pipes and investigated the chemical stability of these deposits. They further

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Investigation of the Transfer of Radioactive Substances by Steam and Water and the Chemical Stability of Deposits in the Steam - Water Cycle of the First Atomic Power Plant

investigated problems of the deactivation of some parts of the steam-power equipment of the plant. The steam-water loop consists of two circuits of stainless steel of the grade 1Kh18N9T (1Kh18N9T), which are insulated against each other. Fig. 1 schematically shows the investigated loop; Table 1 gives data on the two circuits. The coolant used was ordinary distilled water which was kept in circulation by means of pumps. The investigations were carried out with superheated and non-superheated steam; water temperatures, in the first case, amounted to 275°C at the input, and 340-365°C at the output; in the second case they were 265° and 310°C, respectively (with a 25% steam content). The places where samples were taken are given in Fig. 1; the β- and γ-activity was measured on all coolant samples, and the quantity of the dry residue, the pH-value, as well as the radioisotopic, anionic, and cationic components of the contamination were determined. The transfer of radioactive substances was determined from the change in radioactivity of the dry residue along the loop. Table 2 gives a multiple of numerical values of the radioactivity of the dry residue of the coolant determined at various places in circuit II. The

Card 2/4

82731

Investigation of the Transfer of Radioactive Substances by Steam and Water and the Chemical Stability of Deposits in the Steam - Water Cycle of the First Atomic Power Plant

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B006/B056

Na^{24}, Cu^{64}, Mn^{56}, Ni^{65}, and Si^{31} ($T_{1/2} \leq 13$ hours) (30%). Finally, a report is given on deactivation experiments undertaken with various aggressive solutions with and without inhibitors. A 6% HCl + Urotropin and a 5% HNO_3 + 2% HCl + $K_2Cr_2O_7$ solution ($\sim$ 0.05 g/l) were used as solutions with inhibitors, and a 5% HNO_3 and a 5-7% HCl solution as solutions without inhibitors. The experiments were carried out at 20°C for 24 to 48 hours and at 40-60°C for 2 to 4 hours. The results obtained are described in detail. The authors thank A. K. Krasin for his interest in this investigation. There are 2 figures, 5 tables, and 6 references: 4 Soviet and 2 US.

SUBMITTED: November 23, 1959

Card 4/4

USHAKOV, G.N.; KOCHETKOV, L.A.; KONCHKIN, V.G.; SEVER'YANOV, V.S.; KOZLOV, V.Ya.; SUDNITSYN, O.A.; BELINSKAYA, N.P.; SLYUSAREV, P.N.; IVANOV, V.A.

Exploitation of the First Atomic Power Station as an experimental plant. Atom. energ. 17 no.5:359-366 N '64. (MIRA 17:12)

21(9) SOV/89-6-6-4/27

AUTHORS: Slyusarev, P. N., Ivanov, V. A., Nesterova, L. N.

TITLE: Investigation of the Contaminants in the Water Coolant of the First Nuclear Power Plant (Issledovaniye zagryazneniy vodnogo teplonositelya Pervoy atomnoy elektrostantsii)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 6, pp 639 - 643 (USSR)

ABSTRACT: The contaminants in the water coolant originate, from impurities from the feed water and from such caused by the surfaces of the pipes and parts of the primary circuit. As was found in the investigation in the first nuclear power plant the impurities from the primary circuit predominate by far. Iron, chromium, nickel, manganese, and other elements which occur as corrosion products of steel were found in the composition of the deposit salts. The authors investigated the reasons of corrosion of the constructional materials of the primary circuit and that of the elution of particles and determined the chemical composition of the solid contaminants in the coolant. The steel 1Kh18N9T used in the First Nuclear Power Plant is investigated. First, the elution rate of the corrosion products is determined. The results are shown by

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figure 1; in the case of a constant reactor power the elution increases linearly with the passage rate in the primary circuit. In the feed water and in the water of the first circuit the concentrations of the Cl'-, SO_4''-, NO_3'-, and CrO_4''-ions and those of the dry radicals were determined. The results are listed in table 1 (pH between 5.55 and 6.35). In table 3 the pH values are measured and computed comparatively at different NO_3'-concentrations; the values computed are lower. Figure 2 shows that the elution rate increases weakly linearly with increasing reactor power; the investigations were carried out at passage rates of 4.8, 12, 50 and 71.3 $m^3/24$ hours. An investigation of the chemical nature of the contaminants in the water coolant of the first circuit (spectroscopic-chemical-analytical and radiochemical investigation) proved the presence of the following elements: sodium, calcium, magnesium, aluminum, iron, copper, nickel, cobalt, chromium, manganese, and silicon. Fe, Cr, Ni, Co and Mn originated from the circuit material. The total-β-activity of the impurities was determined to be 5.10^{-5} C/l. By radiochemical analysis six different radioactive components were found with the following

mean half lives: 2.5 and 5 h, 26.5, 42 and > 100 d, as well as ~5 a. In the cationite filtrate 3 radioactive components (2.5 h, 26.5 and 42 d) in the anionite filtrate one (42 d) were found. Further details of radiochemical analysis are given, the dialysis is briefly discussed (application of a three-chamber electrodialyzer with colloidal membrane), and some results of ultrafiltrate analysis are given. It was found that Na, Ca, Mn, Ni, Co, Cr and Si occur in the form of ions and Fe and Cu as colloids. In conclusion, the authors thank A. K. Krasin for his interest, V. V. Fomin for consultation, G. N. Ushakov and his collaborators of the First Nuclear Power Plant for assistance. There are 2 figures, 3 tables, and 7 references, 2 of which are Soviet.

SUBMITTED: September 4, 1958

SLYUSAREV, P.N.

L 16232-65 EWT(m)/EWP(n)-2/T/EPA(sb)-2 Pu-4 SSD/AFWL DM
ACCESSION NR: AP4049536 S/0089/64/017/005/0359/0366

AUTHORS: Ushakov, G. N.; Kochetkov, L. A.; Konochkin, V. G.; Sever'yanov, V. S.; Kozlov, V. Ya.; Sudnitsyn, O. A.; Belinskaya, N. T.; Slyusarev, P. N.; Ivanov, V. A.

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 359-366

TITLE: Operating experience with the first atomic electric station as an experimental installation

TOPIC TAGS: research reactor, reactor theory, reactor operation

ABSTRACT: Different experimental loops added to the first atomic energy station for research purposes are described. These include the following: 1) double-passage steam superheating loop; 2) water loop with natural circulation; 3) water loop for water-chemistry research; 4) high pressure water loop; 5) loops for organic-liquid research (with high and low melting temperatures). Each of the loops is briefly described. Other phases of the research are tests of the behavior of the graphite core at high temperatures, operating

Card 1/2

L 16282-65
ACCESSION NR: AP4049536

tests on various channels and fuel elements of tubular construction, investigations of the radioanalysis of water and superheated steam, investigation of deposition of radioactive impurities from the superheated steam on the turbine blades. Some of the brief reports are accompanied by tables showing the variation of the operating conditions of various sections of the reactor with time. Orig. art. has: 3 tables and 2 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00

SUB CODE: NP NR REF SOV: 000 OTHER: 000

Card 2/2

L 24211-65
ACCESSION NR: AP5001268

blocks each of which was assembled at the manufacturing plant, and which are placed on four self-propelled flatcars on caterpillar tracks. No housing is required for the installation; the only local preparation needed is the radiation protection. The results with a demonstration model show a satisfactory agreement between the theoretically expected and actually obtained parameters of the installation. Orig. art. has: 4 figures

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 000 OTHER: 000

Card 2/2

SLYUSAREV S. G.

181T9

USSR/Astronomy - Stellar Statistics 1950

"Distribution of Orbital Planes of Visual Binaries," S. G. Slyusarev

"Uchenye Zapiski, Ser Matemat Nauk" No 22, pp 204-214

Refers to Sobolev's new method (cf. "Astron Zhur" 25, 3, 1948) based on discussion of integral eq relating function of distribution of inclinations of orbit planes to galactic plane with distribution function of inclinations of orbit planes to sky plane. Result showed random distribution.

LC 181T9

S. G. [illegible]

USSR/Astronomy - Bibliography Dissertations Sep/Oct 53

"Bibliography. Index to Astronomical Literature Published in the USSR in May/June 1953," Yu. G. Perel'

Astron Zhur, Vol 30, No 5, pp 572-576

Lists 7 monographs (books, brochures, symposia), 3 ephemerides, 9 'Trudy' (Works) of institutions, 34 articles from 16 periodicals, 9 articles from 7 dailies and gazettes, 2 bibliographies, and 4 author abstracts of dissertations. The 4 dissertations are: 1. M. P. Kazachevskiy, Cand Phys-Math Sci, "Photometric Determination of the Reflectivity of the Terrestrial Globe," Alma-Ata, 1953, 8pp, 120 copies, Acad Sci Kazakh SSR, Astrophys Inst. 2. S. G. Slyusarev, Cand Phys-Math Sci, "Wolf-Rayet Stars," Leningrad, 1953, 8pp, 100 copies, Leningrad U im Zhdanov. 3. P. N. Kholopov, Cand Phys-Math Sci, "Structure of Globular Stellar Clusters," Moscow, 1953, 8pp, 110 copies, Moscow State U, Astron Inst im Shternberg. 4. A. I. Kochetkov, Cand Tech Sci, "Development of a New System of Spherical Coordinates and Formulas for the Computation of Astronomical Observations," Moscow, 1953, 100 copies, Moscow Inst of Engineers of Geodesy, Aerial Photography, and Cartography.

264T76

SLYUSAREV, S. G.

2

The relative content of hydrogen and helium in the atmospheres of Wolf-Rayet stars. S. G. Slyusarev. *Astron. Zhur.* 32, 346–53(1955).—Relative intensities of the bright H and He^+ lines in the spectra of these stars are calcd. from the theory of the luminescence of moving stellar envelopes. Comparison of theory with observation shows the no. of He atoms to be 8–12 times the no. of H atoms for HD 192163 and BD + 35°4013. The chem. compn. of these stars is thus anomalous. Cyrus Feldman

S/169/62/000/004/031/103
D228/D302

3.5150

AUTHOR: Slyusarev, S. G.

TITLE: Radiation field in the deep layers of a turbid medium

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 4, 1962, 23, abstract 4B154 (V sb. Aktinometriya i atmosfern. optika, L., Gidrometeoizdat, 1961, 252-260)

TEXT: The light field is calculated by V. V. Sobolev's method in the deep layers of a turbid medium with a dispersion indicatrix, obtained by A. A. Gershun from observations, for different values of the parameter: $\lambda = \sigma/(\sigma + X)$, where σ and X are the volumetric coefficients of scattering and absorption. The results are compared with the solution, obtained by means of numerically integrating the Ambarzumian equation. It follows from the cited data that the closer the parameter of λ is to unity, the smaller the number of terms in the resolution of the scattering indicatrix according to the Lejandre polynomials that have to be taken in analogous

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L 5434-66 EWT(1)/FCC GW

ACC NR: AT5026208 SOURCE CODE: UR/2703/65/000/328/0072/0082

52
B+1

AUTHOR: Slyusarev, S. G. 44,55

ORG: Astronomical Observatory, Leningrad State University 49,55 (Astronomicheskaya observatoriya, Leningradskiy gosudarstvennyy universitet)

TITLE: On the calculation of spectral albedo of deep bodies of water

SOURCE: Leningrad. Universitet. Uchenyye zapiski, no. 328, 1965. Seriya matematicheskikh nauk, no. 39. Trudy Astronomicheskoy observatorii, v. 22, 72-82

TOPIC TAGS: optic albedo, 12,44,55 solar radiation, water, light reflection, light refraction

ABSTRACT: The derivation of theoretical formulas for the albedo of the surface of a body of water is presented to relieve the paucity of experimental data for this quantity. The well known formula of Fresnel in this connection is accurate only if the flux of radiation scattered from the depths of the body is small in comparison with the flux reflected directly from the surface. This condition is seldom met, especially for large angles of solar elevation $h_\odot$ and high turbidity

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L 5434-66

ACC NR: AT5026208

of the water. The albedo is correctly given by an expression of the form $A_\lambda(\theta_0) = A_{1\lambda}(\theta_0) + A_2(\theta_0)$. ($\theta_0$ is the angle of incidence, λ is the wavelength of the incident radiation.) The first term is given by Fresnel's formula and the method of V. V. Sobolev (Perenos luchistoy energii v atmosferakh zvezd i planet. M, GITTL, 1956) is employed to get the correction $A_{2\lambda}(\theta_0)$. Tables have been prepared showing dependence of albedo on the optical characteristics of the water. For a smooth water surface, values of $A_{2\lambda}(\theta_0)$ in the region of the visible spectrum from $\lambda = 4800$ Å to $\lambda = 6100$ Å (at various values of $h_\odot$) are presented in Table 1. Since recent experimental determinations of spectral albedo are lacking, the same method of Sobolev is used to calculate values of the spectral luminance, and these results are compared with the data of I. V. Semenchenko and A. V. Snytkin (Okeanologiya, 1961, vyp. 5). Good agreement is obtained.

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L 5434-66

ACC NR: AT5026208

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x_1	$h_\odot$, °	A				
		0.5	0.6	0.7	0.8	0.9
0.5	10	4.0	5.6	7.7	11.0	17.4
	30	5.4	7.5	10.5	15.2	24.3
	50	5.3	7.1	10.0	14.7	23.9
	70	4.7	6.7	9.5	14.0	23.0
	90	4.6	6.5	9.3	13.7	22.7
1.0	10	3.2	4.5	6.4	9.4	15.4
	30	4.1	5.9	8.5	12.7	21.2
	50	3.7	5.3	7.9	12.0	20.5
	70	3.3	4.9	7.3	11.2	19.5
	90	3.2	4.7	7.0	10.9	19.2
1.5	10	—	3.4	5.0	7.6	12.9
	30	—	4.2	6.3	9.9	17.5
	50	—	3.4	5.4	8.9	16.5
	70	—	2.9	4.7	7.9	15.4
	90	—	2.7	4.4	7.6	14.9
2.0	10	—	—	—	5.3	9.8
	30	—	—	—	6.4	12.8
	50	—	—	—	5.0	11.3
	70	—	—	—	4.0	10.0
	90	—	—	—	3.5	9.5

Table 1.
to card 4/4

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L 5434-66

ACC NR: AT5026208

from card 3/4

Table 1. Anomalous spectral albedo ($A_{2\lambda}(\theta_0)$) as a function of solar angle of elevation $h_\odot$, specific scattering coefficient $\Lambda(\Lambda = \sigma/(\sigma+\varkappa)$, where σ is the volume scattering coefficient and $\varkappa$ is the volume absorption coefficient), and a parameter x_1 which measures the anisotropy of the volume angle-dependent scattering cross section

Orig. art. has: 28 formulas, 4 tables, and 1 graph.

SUB CODE: ES,OP/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001

Card 4/4

GROSS, S.A.; SAMSHENKOV, A.S.; SHLYUKOV, V.S.; SHUSAKOV, S.P.; SHUKYGIN, I.G.

Some results of the acceleration of filling and discharge operations on the Tuapse tank farm. Transp. i khran. nefti i nefteprod. no.9:28-30 '64. (MIRA17:10)

1. Krasnodarskiy politekhnicheskiy institut i Tuapsinskaya perevalochnaya neftebaza.

SLYUSAREV, T.V.; ORLENKO, V.Ye.

Crops for a winter green fodder plan. Zhivotnovodstvo 23 no.7:55 Jl '61. (MIRA 16:2)

1. Direktor Dinskogo ptitsesovkhoza, Krasnodarskogo kraya (for Slyusarev). 2. Glavnyy agronom Dinskogo ptitsesovkhoza, Krasnodarskogo kraya (for Orlenko).
(Poultry--Feeding and feeds)

TOMANOV, I.; SLYUSAREV, V.

Modernized vibration screen for plastering mixes. Stroitel' no.7:19 Jl '59. (MIRA 12:10)
(Plaster)

L 16448-65 EWT(1) IJP(c)/AFWL/ASD(a)-5/AFETR

ACCESSION NR: AP4042036 S/0126/64/017/006/0801/0808

AUTHOR: Svidzinskiy, A. V.; Slyusarev, V. A.

TITLE: Method of quasiaverages in the theory of Fermi systems with a nonzero orbital pair momentum

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 6, 1964, 801-808

TOPIC TAGS: Fermi system, pair condensation, orbital pair momentum, quasiaverage, statistical mechanics, theory

ABSTRACT: The authors show that on the basis of the principle of reduced correlation it is possible to obtain information about the structure of the condensate in the superconducting Fermi surfaces. By using the method of quasiaverages (N. N. Bogolyubov, Quasi-averages in statistical mechanics, preprint OIYaI, D-781, Dubna, 1961) an assymptotically rigorous solution is given for a model Fermi system by considering the possibility of pair formation with a definite, different from zero, orbital momentum. Both the singlet and the triplet

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L 16448-65

ACCESSION NR: AP4042036

pair states are considered. Orig. art. has: 33 equations

ASSOCIATION: Fiziko-tekhnicheskiy institut nizhikh temperatur AN UkrSSR (Physical-Technical Institute of Low temperatures AN UkrSSR)

SUBMITTED: 12Aug63 ENCL: 00

SUB CODE: NP NO REF SOV: 011 OTHER: 006

Card 2/2

[illegible]

ACC NR: [illegible] SOURCE CODE: UR/00[illegible]/66/000/006/E120/E130

AUTHOR: Svidzinskiy, A. V.; Slyusarev, V. A.

TITLE: The theory of tunnelling in superconductors

SOURCE: Ref. zh. Fizika, Abs. 6E1010

REF SOURCE: Fiz.-tekhn. in-t nizk temperatur AN USSR. Khar'kov, 1965, 15 str.

TOPIC TAGS: tunnel current, superconductor, kinetic equation, phase partial differential equation, boundary condition, tunnelling, superconductor tunnelling

ABSTRACT: The value of a tunnel current in a system of two superconductors separated by an insulating layer is calculated. The calculation is carried out within the framework of a model described by a tunnel Hamiltonian. The new results of the work are as follows: 1) clarification of the occurrence of a coherent phase shift in tunnelling in a system of coupled superconductors; 2) the application to the tunnelling problem of the method of kinetic equations, which makes it possible to give a general calculation of the tunnel current which is valid also for the case of a variable shift at the barrier; 3) the need to correct the computa-

L 04230-67 EWT(1) IJP(c)
ACC NR: AR6031806 SOURCE CODE: UR/0058/66/000/006/E130/E130

34
B

AUTHOR: Ivanchenko, Yu. M.; Svidzinskiy, A. V.; Slyusarev, V. A.

TITLE: Electrodynamics[2] of the Josephson[2] effect

SOURCE: Ref. zh. Fizika, Abs. 6E1011

REF SOURCE: Fiz.-tekhn. in-t nizk. temperatur, Donetskiy fiz.-tekhn. in-t AN USSR. Khar'kov-Donetsk, 1966, 14 str.

TOPIC TAGS: electrodynamics, superconductive tunnelling, tunnel effect, Josephson effect

ABSTRACT: The electrodynamics of superconductive tunnelling at small voltages and during slowly varying processes is investigated. A theory on the voltampere characteristics of such tunnelling is evolved. The experimental data are in good agreement with the theoretical results. [Translation of abstract]

SUB CODE: 11, 09/

Card 1/1 fda

ACC NR: AP6024878

superconductor, the tunneling time, and the time of variation of the barrier voltage. Arguments are presented to show that the premise that the nonlinear Josephson effect occurs at constant voltage on the barrier is incorrect. In fact, the analysis shows that the occurrence of the alternating current is a consequence of a nonlinear element in the electric circuit. The difference between the dc and ac Josephson currents is shown to be due to the fact that the dc is in equilibrium and the ac is not. It is concluded that to construct a complete theory of the phenomena occurring during tunneling it is necessary to take into consideration the existence in the circuit of reactive elements and of the magnetic field, including the self field of the current flowing through the junctions. This will be treated in a separate paper. Orig. art. has: 20 formulas.

SUB CODE: 20/ SUBM DATE: 04Jan66/ ORIG REF: 003/ OTH REF: 009

Card 2/2 net

L 08173-67

ACC NR: AP6024880 O

art. has: 37 formulas.

SUB CODE: 20/ SUBM DATE: 06Jan66/ ORIG REF: 004/ OTH REF: 007

Card 2/2 nst

ACC NR: AP7005583

sistent. This report was presented by Academician N. N. Bogolyubov 23 March 1966. Orig. art. has: 29 formulas.

SUB CODE: 20/ SUBM DATE: 20Mar66/ ORIG REF: 006/ OTH REF: 001

Card 2/2

KONDAUROV, D.I., starshiy nauchnyy sotrudnik; SLYUSAREV, V.I., starshiy nauchnyy sotrudnik

Plant corn with wide-range units. Mekh.sil'hosp. 10 no.2: 8-10 F '59. (MIRA 12:6)

1. Kubans'kiy naukovo-doslidniy institut viprobovannya traktoriv i sil'skogospodars'kikh mashin.
(Planters (Agricultural machinery))
(Corn (Maize))

KONDAUROV, D.; KOLPAKOV, K.; SLYUSAREV, V.

Over-all mechanization of corn harvesting. Tekh.v sel'khoz. 19 no.5:10-13 My '59. (MIRA 12:7)

1. Kubanskiy nauchno-issledovatel'skiy institut ispytaniy traktorov i sel'skokhozyaystvennykh mashin.
(Corn(Maize)--Harvesting)

SLY[illegible], T. T.

P[illegible] an

Growing pecans in the southern districts. Les 1 step' No. 3, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952.
Unclassified.

AUTHORS: Gekker, R.F., Osipova, A.I., Slyusareva, A.D. 5-6-42/42

TITLE: Kazan' Sea of the Russian Plateau and Its Fauna (Kazanskoye more russkoy platformy i yego fauna)

PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskiy, 1957, # 6, pp 153-155 (USSR)

ABSTRACT: The investigation performed by the Paleoecology Laboratory of the Paleontological Institute of the USSR Academy of Sciences represents a partial result of studying the Late-Permian sea and its fauna on the territory of the Russian plateau. It is at the same time a part of paleoecological and philogenetic investigations of the fauna of all Paleozoic seas which covered once the Russian plateau.

The authors describe various species of the fauna discovered, among which representatives of the genera Productus, Permospirifer and Licharewia occurred most often.

AVAILABLE: Library of Congress

Card 1/1

SLYUSAREVA, A. D.: Master Biol Sci (diss) -- "The genera Licharevia and Permospirifer in the Kazan depression of the Russian platform, and their living conditions". Moscow, 1958, published by the Acad Sci USSR. 16 pp (Acad Sci USSR, Paleontological Inst), 185 copies (KL, No 5, 1959, 147)

OSIPOVA, A.I.; SLYUSAREVA, A.D.

Kazanian sediments in Pinega and Kuloy Valleys and their correlation with sediments in the Vyatka Uval and Volga-Kama area. Izv. vys. ucheb. zav.; geol. i razv. 1 no.8:15-29 Ag '58. (MIRA 12:9)

1.Paleontologicheskiy institut AN SSSR.
(Russian Platform--Geology, Stratigraphic)

AUTHOR: Slyusareva, A. D. 20-3-47/59

TITLE: On the Spirifers of the Kazan' Stratum
(O kazanskikh spiriferakh)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 3, pp. 581-583 (USSR)

ABSTRACT: More than 2oo invertebrate remains from the Kazanskiy stratum of the Russian Platform were known already in 1894 (reference 4). In the lower Kazanskiy stratum spirifers (Brachiopoda) from the sub-species Licharewiinae are particularly numerous. N. N. Forsh (references 7, 8) used the species composition of the spirifers as a main discriminant feature with respect to the fauna for his classification of the stratum. The determination of the species of Licharewiinae, however, is very difficult, and several authors plead for a unification of some species. (references 3, 1o). The author studied the species of this sub-species from the Volga-Kama district and from the Northern Severnyy kray district (the rivers Pinega and Kuloy) and found, that the shape of the shell, the shape and height of the area and the contour of the sinus may

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Kazanskiy waters, where a most normal marine regime was predominant. The variability of Licharewia rugulata, which is represented in all layers of the lower Kazanskiy sediments, may vary locally and is mainly dependent upon its salt content. The more the salt content deviates from the normal marine value, the greater is the variability. Also the type of ground and the mobility of the water effect a number of morphological differences, because the animals had to fasten themselves better. In Severnyy kray (Northern area) the Permospirifer species are numerous in the lowest part. In the middle part Licharewiinae are rare, the species of the class Blasispirifer are most numerous. Therefore not only the qualitative, but also the quantitative conditions of the occurrence of spirifers show a different configuration. During the period of maximum transgression and of optimum connection with the open sea the Licharewia species were the most numerous in the Volga-Kama district. The mobility of the water, and with it the supply of fresh air were considerable here, and therefore the population was dense. From this results the great number of irregularly developed shells caused by the

compactness. When the expanse of water diminished and the connection with the open sea became more difficult, the most markedly stenohaline species vanished. Licharewia species often turned into diminutive forms, which may be connected with the lowered salt content. The species Licharewia rugulata (Kut.), which was most widely distributed, may be supposed to constitute the initial form of the other Licharewia species on the one hand and of the Permospirifer species on the other hand. There are 1o references, all of which are Slavic.

PRESENTED: September 16, 1957, by D. V. Nalivkin, Academician

SUBMITTED: September 1o, 1957

AVAILABLE: Library of Congress

Card 4/4

AUTHOR: Lycharewa, A. P. SOV/20-122-1-35/44

TITLE: The Genera Licharewia Finor and Permospirifer Kulikov in the Kazan Sea of the Russian Platform (Rody Licharewia Finor i Permospirifer Kulikov v Kazanskom more Russkoy platformy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 127-130 (USSR)

ABSTRACT: By far not all paleontologists approve of the existence of two genera of the Kazanskiye (Upper Permian) Spirifers with a smooth sinus. The author investigated the inner structure of these genera by the method of series sections and found new features which draw a border line between the genera mentioned in the title. They are described in the present paper. A. V. Nechayev (Ref 7) divided the Kazanskiye Spirifer species described by him into 4 groups. For this purpose he used mainly external features of the shell. In 1959 (Ref 8) O. L. Eynor separated a new genus Licharewia of the genus Spirifer together with the typical species S. stuckenbergi Netsch. and compared them with the Kazanskiye Spirifer species of all 4 mentioned groups. Based upon the investigation of the inner structure of the same Spirifer groups M. V. Kulikov set up a further subgenus Permo-

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spirifer (Ref 3). According to the latter author the main difference in comparing them with Licharewia is a peculiar formation of the "area". Kulikov classified one of the initially mentioned groups, e.g. S. keyserlingi group among the latter subgenus. Comprehensive informations were collected by the Permskiy paleoekologicheskiy otryad (Paleoecological Department for the Permian) of the institute mentioned in the association under the supervision of P. F. Gekker in the Volga-Kama region and in the Severnyy kray in the years 1955-1956. Sections were made and the mentioned informations were used for an investigation of the external and internal structure. One of the problems to be solved was the difference between the internal structure of Permospirifer and Licharewia. Detailed descriptions of both groups (now as genera) are given (Fig 1).
Licharewia is known in the Russkaya Platform, in the catchment areas of the rivers Volga and Kama as well as in single individuals in the North of the European part of the USSR and of the Kolyma river. The representatives of this genus appeared in a particularly high number in the southern parts of the

SLYUSAREVA, Aleksandra Dmitriyevna; GEKKER, R.F., otv.red.; MOROZOVA, I.P., red.izd-va; YEGOROVA, N.F., tekhn.red.

[Spiriferids from the Kazan stage of the Russian Platform and the conditions governing their existence; the genera Licharewia Einor and Permospirifer Kulikov] Spiriferidy Kazanskogo iarusa Russkoi platformy i usloviia ikh sushchestovaniia (rody Licharewia Einor i Permsopirifer Kulikov). Moskva, Izd-vo Akad.nauk SSSR, 1960. 119 p. (Akademiia nauk SSSR. Paleontologicheskii institut. Trudy, vol. 80) (MIRA 14:2)
(Russian Platform—Brachiopoda, Fossil)

SLYUSAREVA, A.D.

Some species of spirifers from the sediments of the Kazan stage in the Russian Platform. Mat.k "Osn.paleont." no.3:32-36 '59. (MIRA 15:7)

(Russian Platform--Brachipoda, Fossil)

SLYUSAREVA, A.I.

Results of hydrobiological observations on some Donets Basin reservoirs. Trudy probl. i tem. soveshch. no.2:56-59 '54. (MLRA 8:5)
(Donets Basin--Fresh-water biology)
(Donets Basin--Reservoirs)

SLYUSAREVA, A.I.

Results of observations of flora in the Karlovka water reservoir. (MLRA 9:7)
Vod.i san.tekh.no.3:23-25 Mr '56.
(Karlovka--Reservoirs) (Fresh-water flora)

SLYUSAREVA, A.I.

Biological fouling and plankton of the Northern Donets-Donets Basin Canal according to the data of the first years of its use (1959-1960). Trudy Gidrobiol. ob-va 14:130-136 '63. (MIRA 17:6)

1. TSentral'naya laboratoriya Donbassvodtresta, Donetsk.

S/129/60/000/06/019/022
E073/E535

AUTHOR: Mints, R. I., Candidate of Technical Sciences

TITLE: All Union Scientific-Technical Seminar on Improving the Cavitation Resistance of Components, Sverdlovsk

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, Nr 6, pp 58-60 (USSR)

ABSTRACT: The seminar was held at the initiative of the Problems Laboratory for Metallurgy at the Ural Polytechnical Institute imeni S. M. Kirov jointly with other organizations. In the seminar representatives of research establishments and works from Sverdlovsk, Perm', Chelyabinsk, Barnaul, Gor'kiy, Odessa, Leningrad, Yerevan, Murmansk, Khar'kov and other places participated. This report gives brief summaries of the following papers which were read:
G. D. Ter-Akopov, Candidate of Technical Sciences, "Cavitation failures in hydraulic turbines";
L. I. Pomerantsiy, Engineer, "Cavitation in hydraulic turbines"; M. I. Kurasovich, Engineer, "Cavitation failures in runners of centrifugal pumps"; Marinin, A.A., Engineer, "Cavitation failures in marine propellers";

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N. N. Ivanchenko, Candidate of Technical Sciences, "Cavitation failures in diesel engines"; A.P.Chervyakov, Engineer, "Increase of the cavitation-erosion stability of jacket and cylinder liners of the diesel engines D6 and D12"; I.N. Bogachev, Doctor of Technical Sciences, "Mechanism of the cavitation failure of metallic alloys and principle for the selection of such alloys"; R.I. Mints, Candidate of Technical Sciences, "Combatting cavitation failure by using surface-active additions to the liquid phase of closed systems"; R.Sh. Shklyar, Candidate of Technical Sciences, D.D.Zhuravleva, Engineer, and M.N.Syutkin, Engineer, "Structural changes in the initial stages of cavitation failure"; T.M.Petukhova, Engineer, "Influence of the structure on the resistance to cavitation of bronze"; V.K.Gavranek, Candidate of Technical Sciences and D.N. Bol'shutkin, Engineer, "Cavitation erosion of metals, thermal and mechanical effects in the cavitation zone".

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SLYUSAREVA, F.G.

137-58-5-11150

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 321 (USSR)

AUTHORS Tarasov, N.Ya., Bogdanov, T.G., Slyusareva, F.G.

TITLE: A High-speed Photocolorimetric Method Determines Phosphorus Content of Steel by Employing Isoamyl Alcohol for Extraction of the Phosphorus-molybdenum Complex (Ob ekspressnom fotokolorimetricheskom metode opredeleniya soderzhaniya fosfora v stali s izvlecheniyem izoamilovym spirtom fosforno-molibdenovogo kompleksa)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii. Ukr. resp. pravl., 1956, Vol 4, pp 104-106. Comments, p 107

ABSTRACT: A high-speed photocolorimetric method was developed whereby the P content of steel is determined by means of extraction of the P-Mo complex with the aid of isoamyl alcohol. 0.5 g of steel is dissolved in 20 cc of HNO_3 (1:1); after adding 5 cc of a 1.5% $KMnO_4$ solution, the mixture is boiled until the precipitation of MnO_2; the latter is subsequently decomposed by heating in 5 cc of a 5% solution of $H_2C_2O_4$. After cooling, the solution is transferred into a 100-cc flask, and H_2O is added to a predetermined level. 2 cc of the solution being analyzed and 3 cc of isoamyl

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tion is diluted with H_2O to a volume of 1 liter and is then filtered; a stream of CO_2 is passed through it for a period of 10 minutes. The solution is preserved under CO_2. Before using, the solution is diluted (1:1) with water and placed into [illegible] where it is preserved under a layer of transformer oil 1-2 cm thick.) The alcohol extract is analyzed photometrically [illegible] red light filter.

K.K.

1. Phosphorus--Determination 2. Steel--Analysis 3. Alcohols--Applications
4. Colorimetry--Applications

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89942

S/126/61/011/001/009/019
E111/E452

18 8260

AUTHORS: Bogachev, I.N., Shklyar, R.Sh., Slyusareva, L.D., Mints, R.I. and Syutkin, N.N.

TITLE: Change in Structure and Phase Composition of Some Austenitic Steels in the Initial Stages of Cavitation Failure

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.1, pp.86-93

TEXT: Bogachev and Mints have previously shown that the resistance to cavitation of austenitic nickel manganese, chromium-nickel and chromium-manganese steels varies greatly (Ref.1). The object of the present work was to study structural changes during cavitation failure in the surface layers of the austenitic steels of the following types and compositions (%):

		C	Ni	Mn	Cr
1Kh18N8	1Х18Н8	0.12	8.39	0.92	18.05
30G10Kh9	30Г10Х9	0.31	0.13	10.30	9.117
40N25	40Н25	0.40	25.00	0.20	0.13
80G14	80Г14	0.81	1.10	14.50	0.40

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89942

S/126/61/011/001/009/019
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Change in Structure and Phase Composition of Some Austenitic Steels in the Initial Stages of Cavitation Failure

Specimens were plunged in water after holding for 30 minutes at 1050°C. After removal of the outer layers, specimens were subjected to the cavitation action of a magnetostriction vibrator for 5, 10, 15 and more minutes. Phase composition changes were qualitatively determined from X-ray patterns obtained from a polished section. Structural changes were determined from interference-line width and also changes in shape and dimensions of individual spots. The back-reflection camera provided three images of the same interference ring on one film at different specimen-film distances. Spot dimensions were measured on all rings in tangential and radial directions with the aid of a type ИЗА-2 (IZA-2) comparator. Patterns were obtained from the same part of a given specimen after various treatments. Line width was measured on patterns obtained separately in chromium radiation with rotation of both specimen and film. Two of the steels were also studied electron-microscopically before and after testing for 5 and 10 minutes. The work showed that the austenite lines obtained exclusively from all specimens before testing were

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Change in Structure and Phase Composition of Some Austenitic Steels in the Initial Stages of Cavitation Failure

supplemented in three of the steels by other lines after testing. The transformation of austenite was different in two steels: in type 1Х18Н8 (1Kh18N8) the alpha-phase was formed; in type 30Г10Х9 (30G10Kh9) epsilon-phase was formed as well. This was confirmed in the electron photomicrographs. In type 40Н25 (40N25) steel the transformation was similar to that in 1Kh18N8 but slower, while in 80Г14 (80G14) only austenite lines were found even after prolonged specimen treatment. Interference spots generally survived specimen treatment and spot changes were similar in all four steels. The situation is qualitatively represented by the authors in terms of changes in the disorientation angle for individual crystals. In Fig.5, this angle (minutes) is plotted against treatment time (minutes) for various crystals of 40N25 (plot "a") and 80G14 (plot "b") steels. For all the steels the width of the $(311)_\beta$ line increased in the first stages of treatment and then became steady. From the photometric curve of the $(311)_\beta$ line dimensions of mosaic blocks and II type disturbances were found (as in Ref.2): in the first

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Change in Structure and Phase Composition of Some Austenitic Steels in the Initial Stages of Cavitation Failure

few minutes the former decrease rapidly and the latter increase; the intensity of these effects being different for the different steels. The authors conclude that resistance to cavitation disruption rises when tetragonal martensite, epsilon phase and fine carbides are liberated within the austenite grain; resistance falls when alpha-phase (low in carbon) is liberated either within or around the grain. There are 7 figures, 2 tables and 3 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M.Kirova
(Ural Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: April 4, 1960

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S/032/62/028/006/009/025
B101/B138

AUTHORS: Pchelintseva, A. F., Rakov, N. A., and Slyusareva, L. P.

TITLE: Spectrochemical determination of boron traces in highly pure silicon tetrachloride

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 6, 1962, 677 - 678

TEXT: A method is described for concentrating boron traces in highly pure $SiCl_4$, based on the formation of the nonvolatile and insoluble complex compound $(C_6H_5)_3CCl \cdot BCl$ in the presence of triphenyl chloro methane. 8 ml of the $SiCl_4$ sample with 2 mg triphenyl chloro methane, and 40 mg carbon powder which is spectrally pure with regard to boron, are mixed at dry-ice temperature for 1 hr. $SiCl_4$ is then evaporated in N_2 at 45 - 50°C and dried below 100°C (as the complex begins to decompose at 150°C). The sample is placed in the cavity of a carbon electrode which is spectrally pure with regard to boron. The recording is made with an ИСП-28 (ISP-28) spectrophotometer in a d.c. arc, the sample connected as anode being

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SLYUSAREVA, M.N.

New mineral "uklenskovit." Dokl. AN SSSR 158 no.5:1093-1095 O '64.
(MIRA 17:10)

1. Glavnoye upravleniye geologii i okhrany nedr pri Sovete Ministrov UzSSR. Predstavleno akademikom N.V.Belovym.

ACC NR: AP6032525 (A) SOURCE CODE: UR/0413/66/000/017/0123/0123

INVENTOR: Gil'man, L. M.; Sprude, I. K.; Slyusareva, N. G.

ORG: none

TITLE: Ball regulator for the flow of fluid. Class 47, No. 185646

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 123

TOPIC TAGS: fluid mechanics, fluid dynamics, fluid flow, flow control, fluid flow regulator, physics laboratory instrument

ABSTRACT: A variation of the ball regulator for fluid flows described in Author Certificate No. 154120 is introduced. In order to maintain a given static pressure

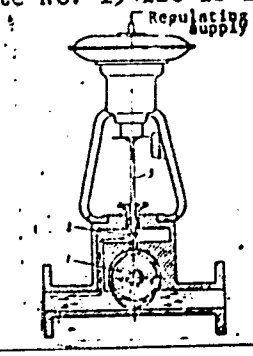

Fig. 1. Flow regulator

1 - Ball; 2 - auxiliary valve; 3 - servodrive.

Card 1/2 UDC: 62-553.4

ACC NR: AP6032525

in the chamber under the ball independent of the regime of medium being regulated, the chamber is equipped with auxiliary valve operated by a type of servodrive. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 03Apr64/

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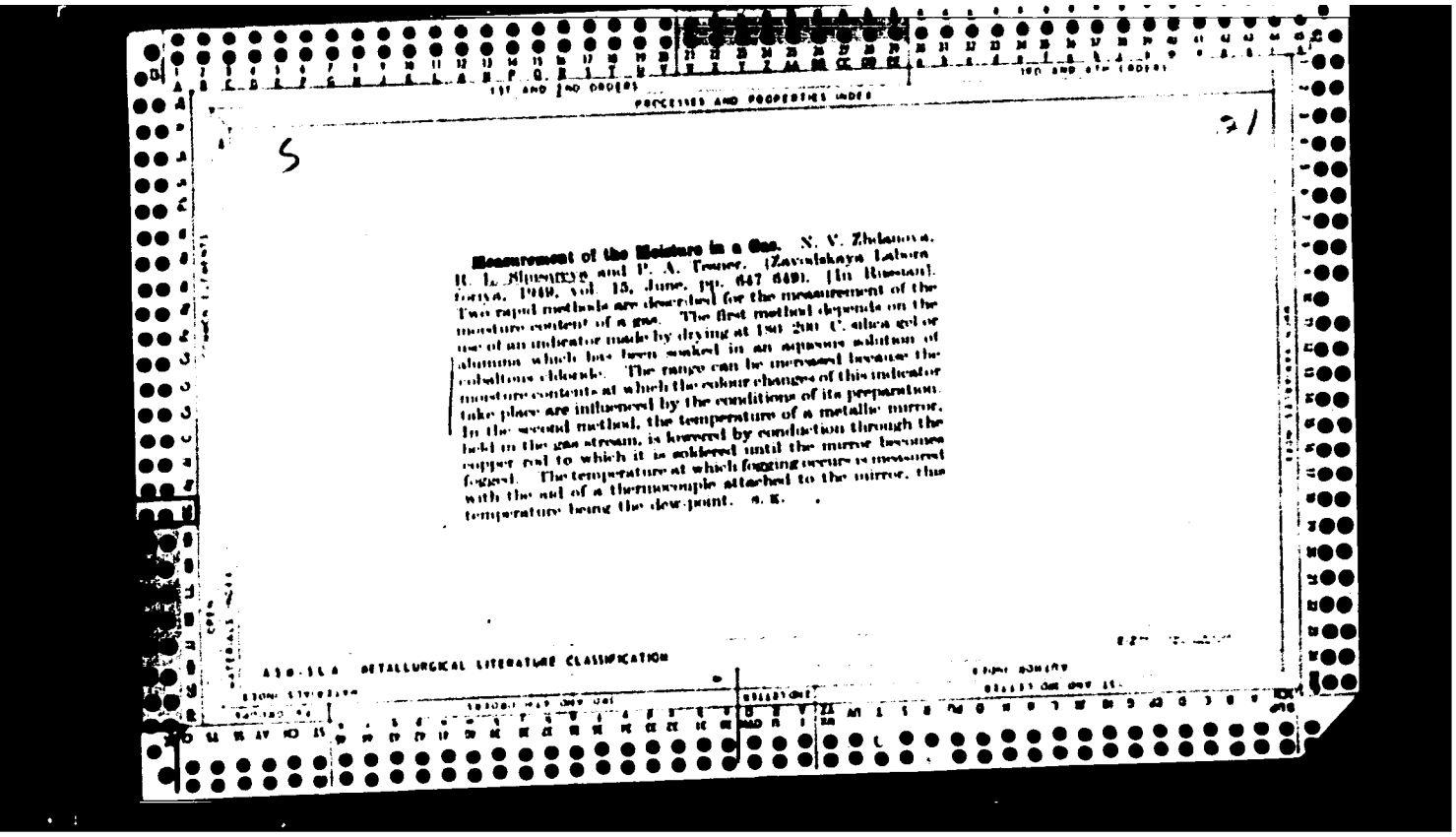

PROCESSES AND PROPERTIES INDEX

S

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Measurement of the Moisture in a Gas. N. V. Zhelannova, H. L. Shpunt[illegible] and P. A. Tesner. (Zavodskaya Laboratoriya, 1949, Vol. 15, June, pp. 647 649). [In Russian].
Two rapid methods are described for the measurement of the moisture content of a gas. The first method depends on the use of an indicator made by drying at 150 200 C. silica gel or alumina which has been soaked in an aqueous solution of cobaltous chloride. The range can be increased because the moisture contents at which the colour changes of this indicator take place are influenced by the conditions of its preparation. In the second method, the temperature of a metallic mirror, held in the gas stream, is lowered by conduction through the copper rod to which it is soldered until the mirror becomes fogged. The temperature at which fogging occurs is measured with the aid of a thermocouple attached to the mirror, this temperature being the dew-point. a. k.

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

KARABASH, A.G.; PEYZULAYEV, Sh.I.; SLYUSAREVA, R.L.; SOTNIKOVA, N.P.; SMIRNOVA-AVERINA, N.I.; SAMSONOVA, Z.N.; KRAUZ, L.S.; MOROZOVA, G.G.; ROMANOVICH, L.S.; SMIRENKINA, I.I.; LIPATOVA, V.M.; SAZANOVA, S.K.; PUGACHEVA, L.I.; USACHEVA, V.P.; VORONOVA, Ye.P.; GORBACHEV, P.D.; KOSTAMEVA, F.A.; KOSTEREVA, N.T.; YELOVATSKAYA, A.I.; KUZNETSOVA, N.N.

Spectrochemical analysis of pure metals for impurities. Fiz. sbor. no.4:556-562 '58. (MIRA 12:5)
(Spectrochemistry)

5(2), 5(4)

AUTHORS: Karabash, A. G., Peyzulayev, Sh. I., Slyusareva, R. L., Lipatova, V. M. SOV/75-14-1-19/32

TITLE: A Chemico-Spectrographic Method for the Analysis of Metallic Beryllium and Beryllium Oxide of High Purity (Khimiko-spektral'nyy metod analiza metallicheskogo berilliya i okisi berilliya vysokoy chistoty)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 1, pp 94-99 (USSR)

ABSTRACT: The spectrochemical method described in the present paper permits the simultaneous determination of the following 24 impurities in metallic beryllium and beryllium oxide: Mg, Ca, Ba, Al, Ti, V, Cr, Mo, Mn, Fe, Co, Ni, Cu, Ag, Zn, Cd, Be, Pb, Sb, Bi, Ga, In, Tl, Te. The determination of Na was carried out separately in a glass spectrograph. For the enrichment of admixtures beryllium was extracted in form of its basic acetate $Be_4O(CH_3COO)_6$ with chloroform. This basic beryllium compound is satisfactorily resistant against the action of many organic reagents (water, hydrochloric acid) and easily soluble in organic solvents. Solubility in chloroform amounts

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to 50g in 100 ml $CHCl_3$, whereas the acetates of the admixtures to be determined are practically insoluble in chloroform. The chloroform extract is three times washed with hydrochloric acid, and the admixtures, together with a small quantity of Be ($\sim$1/20 of the initial quantity) pass quantitatively into the solution of hydrochloric acid. In this way the admixtures are enriched 20 - 25-fold. By this enrichment the sensitivity of admixture determination is increased from 10^{-3} - 10^{-4}% (without enrichment) to 10^{-4} - 10^{-5}%. The lines used for the spectral-analytical determination of the 24 admixtures and of sodium are shown in a table. The main quantity in the concentrate is Be_2O_3. By means of a special process, which is described in detail in this paper, the authors conveyed the beryllium oxide into a glass-like modification (hexagonal crystal lattice of the Wurtzite type), which differs from normal Be_2O_3 by its much smaller crystals. This modification permits an increase of the weighed in portion and thus also an increase of the sensitivity of determination. The corresponding investigations of X-ray structure were carried out

SOV/75-14-1-19/32

A Chemico-Spectrographic Method for the Analysis of Metallic Beryllium and Beryllium Oxide of High Purity

by Ye. S. Makarov. The exactness and reproducibility of the elaborated method was tested on the basis of 25 artificial mixtures, and also by comparison with results obtained by chemical methods of determination. The relative error of determination (arithmetic mean) amounts to ± 20%, only at the sensitivity limit of the method the error attains values of 50 - 100%. Errors occur particularly in connection with the determination of cadmium. The method may be used for the analytical control of beryllium of a high degree of purity. Also a method for the spectroanalytical determination of samples without enrichment of admixtures was worked out which may serve for the control of technical products (accuracy 10^{-3} - 10^{-4}%). Carrying out of both kinds of determination is very accurately described in the paper. There are 2 figures, 2 tables, and 18 references, 3 of which are Soviet.

SUBMITTED: October 28, 1957

Card 3/3

KARABASH, A.G.; PEYZULAYEV, Sh.I.; SLYUSAREVA, R.L.; LIPATOVA, V.M.

Determination of impurities in beryllium and beryllium oxide. Trudy Kom. anal. khim. 12:331-340 '60. (MIRA 13:8)
(Beryllium--Analysis)

PEYZULAYEV, Sh.I., POPOVA, L.K., SLYUSAREVA, R.L.

Spectrum analysis for the determination of traces of impurities in organic compounds. Zav.lab. 26 no.5:552-553 '60. (MIRA 13:7)

(Organic compounds) (Trace elements--Spectra)

L 54007-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP5012491 UR/0032/65/031/005/0557/0559
543.42 : 546.641

20
19
B

AUTHORS: Slyusareva, R. L.; Kondrat'yeva, L. I.; Peyzulayev, Sh. I.

TITLE: Chemical-spectral analysis of yttrium and its oxide for impurities

SOURCE: Zavodskaya laboratoriya, v. 31, no. 5, 1965, 557-559

TOPIC TAGS: yttrium, chemical analysis, spectrography, tributyl phosphate

ABSTRACT: Two variants of a chemical-spectral method of analyzing yttrium have been developed: one with preliminary concentration of the impurities, and the second by direct spectral analysis without concentration. Concentration is effected by separation of the yttrium with undiluted tributyl phosphate from a nitric acid solution (13N HNO_3). In this process about 95% of the yttrium goes into the organic phase. The impurity distribution between aqueous and organic phases is tested on an artificial mixture of salts, and this is analyzed for both aqueous and organic phases. It was found that Mg, Ca, Fe, Cr, Co, Ni, Zn, Cd, Cu, Mn, Sn, Pb, Sb, Bi, and Ta are concentrated chiefly in the aqueous phase. Standards were prepared with Y_2O_3. Altogether, 20 elemental impurities were determined spectrographically. These are

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L 54007-65
ACCESSION NR: AP5012491

tabulated in the article. A method of complete combustion was employed to determine relatively nonvolatile impurities, and fractional evaporation with gallium oxide carrier was used for the readily volatile constituents. The sensitivity of the method proved to be $1 \cdot 10^{-3} - 1 \cdot 10^{-6}$%. Orig. art. has: 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: GC, OP

NO REF SOV: 000 OTHER: 000

Jac
Card 2/2

SLYUSAREVA-IL'INA, A.I.

Formulas for designing three-lense cemented objectives. Opt.-mekh. prom. 25 no.4:11-13 Ap '58. (MIRA 11:10)
(Lenses)

SLYUSAREVSKIY, A.Ya., brigadir

Reinforcing the insulation of lightning arresters. Elek.i topl. tiaga 5 no.12:22-23 D '61. (MIRA 15:1)

1. Tuapsinskaya distantsiya kontaktnoy seti Severo-Kavkazskoy dorogi.

(Lightning prctection)

BURAVLEV, T.T.; SLYUSAROV, I.T.

Precipitation of red sludge from the aluminate solution by the Bayer method. Zhur. prikl. khim. 33 no.12:2627-2632 D '60. (MIRA 14:1)

1. Zaporozhskiy mashinostroitel'nyy institut.
(Alumina) (Bauxite)

URAZOVSKIY, S.S.; SLYUSAROV, I.T.

Conformational transformations of macromolecules in solutions.
Part 1: Conformational transformations of polymethacrylic acid.
Vysokom.soed. 3 no.3:420-425 Mr '61. (MIRA 14:6)

1. Khar'kovskiy politekhnicheskiy institut imeni V.I.Lenina.
(Methacrylic acid) (Macromolecular compounds)

36295
S/190/62/004/004/001/019
B119/B138

5.4100

AUTHORS: Glyusarov, I. T., Urazovskiy, S. S. (Deceased)

TITLE: Study of conformational transformations of macromolecules in solution. III. Conformational transformations of 2-vinyl pyridine - methacrylic acid copolymer

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 4, 1962, 481-485

TEXT: The authors studied the temperature dependence of the viscosity, electrical conductivity, and hydrogen ion concentration of dilute solutions of 2-vinyl pyridine - methacrylic acid copolymer between 20 and 60°C. Copolymer composition: 61.3% 2-vinyl pyridine, 38.7% methacrylic acid, corresponding to 3 basic and 2 acid groups per 10 carbon chain atoms. Solvent: water in the pH range below 3.60 and above 6.66; water-methanol (1:9) or dimethyl formamide at pH 3.60 - 6.66 (in this range, the copolymer is insoluble in water). Concentration of solutions: 0.05 - 1.0 g/deciliter. Results: At constant temperature, the specific viscosity of the solutions shows maxima at the neutralization points of the basic and acid groups; it falls to a minimum at the isoelectric point. Up to 40°C,

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the specific viscosity of the aqueous solutions falls steadily, both in the acid and alkaline ranges; it increases noticeably up to 45°C, and decreases again on further increase in temperature. With solutions in methanol or dimethyl formamide there is a steady decrease in specific viscosity with rising temperature. The aqueous solutions show a considerable increase in hydrogen ion concentration and electrical conductivity at ~40°C. These phenomena are attributed to conformational transformations at ~40°C, during which the intra- and intermolecular association forms are changed with participation of H_2O. There are 5 figures. The most important English-language reference is: T. Alfrey, H. Morawetz, J. Amer. Chem. Soc., 74, 436, 1952.

ASSOCIATION: Zaporozhskiy mashinostroitel'nyy institut im. V. Ya. Chubarya (Zaporozh'ye Machine-Building Institute imeni V. Ya. Chubar')

SUBMITTED: January 26, 1961

X

SLYUSAROV, I.T

On conformational transformations of polymethacrylic acid.
Vysokom.soed. 4 no.4:618-620 Ap '62. (MIRA 15:5)

1. Zaporozhskiy mashinostroitel'nyy institut imeni V.Ya. Chubarya.

(Methacrylic acid)
(Macromolecular compounds)

S/073/62/028/006/001/002
D202/D307

AUTHORS: Urazovskiy, S.S., Deceased and Slyusarov, I.T.

TITLE: Conformational changes of polyvinylpyridine (PVP)

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 28, no. 6, 1962, 669-672

TEXT: The temperature dependences of specific viscosity (η), electrical conductance and hydrogen ion concentration were studied in partially neutralized aqueous solutions of polyvinyl pyridine, in an effort to elucidate the conformational transformations of macromolecular polymers containing basic functional groups. The concentration of PVP was varied between 0.05 and 2 g/dl, and the above-mentioned properties were measured in the temperature range of 20 - 60°C; the temperature dependence of the specific viscosity in methanolic solutions was also studied between 20 and 50°C. The plots of these properties consisted of two linear portions with a distinct break at ~ 35°C, which gradually disappeared with increasing degree of ionization. No such discontinuity was observed in

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